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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,314	03/30/2004	David P. Kippie	PA-00404US	3626
26721	7590	11/13/2006		
CARTER J. WHITE LEGAL DEPARTMENT M-I L.L.C. 5950 NORTH COURSE DRIVE HOUSTON, TX 77072			EXAMINER FIGUEROA, JOHN J	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/813,314

Applicant(s)

KIPPIE ET AL.

Examiner

John J. Figueroa

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453-O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The 35 U.S.C. 112, second paragraph rejection (item 2 on page 2 of the Office Action of May 4, 2006, hereinafter 'OA') has been withdrawn in view of Applicant's amendment to the claims in the amendment/response filed August 25, 2006, hereinafter "Response".
2. The 35 U.S.C. 102(b) rejection of claims 1-6 as anticipated by United States Patent Number (USPN) 5,804,535 to Dobson et al., hereinafter 'Dobson', is maintained for the reasons previously made of record in item 4 on page 3 of OA and set forth below in paragraph #7.
3. The 35 U.S.C. 102(b) rejection in item 5 on page 4 of OA as anticipated by USPN 6,420,319 B1 to Estes et al., hereinafter 'Estes', has been withdrawn in view of Applicant's amendment to the claims in Response.
4. The 35 U.S.C. 103(a) rejection of claim 8 (item 7 on page 5 of OA) as unpatentable over Estes has been withdrawn in view of Applicant's cancellation of this claim in Response.

Claim Rejections - 35 USC § 112

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-6, 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are indefinite because independent claims 1, 4 and 6 recite a "monovalent cation containing well fluid *comprising* an aqueous monovalent brine system and ... a starch derivative ... wherein the aqueous monovalent brine system *consists essentially* of at least 0.6 equivalents per liter of a water soluble monovalent cation salt ...". The claims language thus recites "comprising of" transitional phrase language for the well fluid but "consisting essentially of" language for the brine system. It is unclear from this claim language as to whether the well fluid can "comprise", e.g., a second aqueous solution system that is not necessarily a monovalent brine system or, alternatively, if the well fluid recited in the claim is intended to be limited to "comprise" a single monovalent brine solution.

The claims are further indefinite because it is unclear from the specification and the claims language as to exactly which material elements the transitional phrase "consisting essentially of" is excluding from said monovalent brine system. It is also uncertain as to whether the well fluid can *comprise* a component that can be considered to materially affect the basic characteristics of the monovalent brine system, but is not present in said system but is present in the well fluid as a whole (e.g., in a colloid or in an oil-in-water emulsion system). There is no disclosure in the specification that will allow a person of ordinary skill in the art to determine which common additive, such as a formate salt, would materially affect the novel characteristics of the brine solution

Art Unit: 1712

system recited in the amended claims and thus excluded by the "consisting essentially of" language. See MPEP 2111.03.

In addition, the phrase "wherein the *monovalent* cation salt is substantially free of *divalent* cations" in independent claims 1, 4 and 6 is vague and confusing. It is extremely unclear as to how a *monovalent* salt compound can contain *divalent* cations in the first place.

For purposes of the instant Office Action, the independent claims will be given its broadest possible interpretation and are thus interpreted to encompass, e.g., an embodiment wherein the well fluid can, in addition to containing the recited aqueous monovalent brine system, further comprise a second aqueous solution having divalent cations.

Claim Rejections - 35 USC § 102

7. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Dobson.

Independent claims 1, 4 and 6 have been amended to recite a well fluid, substantially free of xanthan gum and having recited physical properties relating to shear rate, *comprising* an aqueous monovalent brine system and an amount of a starch derivative, wherein said aqueous monovalent brine system *consists essentially* of at least 0.6 equivalents per liter of a water-soluble monovalent cation salt, wherein the anion of the salt is a halide and wherein "the monovalent cation salt is substantially free of divalent cations." Elements of the claim language in the instant independent claims were addressed, *supra*, in paragraph #6.

Art Unit: 1712

Dobson was discussed previously in item 4 on page 3 of OA and the arguments in that rejection are incorporated herein in their entirety.

As stated previously in item 4 of OA, Dobson discloses an aqueous well fluid drilling composition comprising a brine solution, a pregelatinized amylopectin starch derivative and a bridging agent. Dobson further discloses that the bridging agent is preferably potassium chloride, a monovalent cation/halide compound (col. 6, lines 48-52), having a concentration of from 0 to 286 grams per liter (Table in col. 7).

Accordingly, Dobson discloses a well fluid *comprising* an aqueous monovalent brine system (consisting essentially of water and potassium chloride) in addition to said well fluid further *comprising* a second aqueous system containing a formate salt.

Thus, the instant claims, as amended, remain anticipated by Dobson.

Claim Rejections - 35 USC § 103

8. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobson.

Claims 9 and 10 limit the pregelatinized crosslinked amylopectin starch to comprise less than 10% amylase. Although Dobson does not expressly limit the amount of amylase that is present in the starch derivative, it would have been obvious to a person of ordinary skill in the art at the time the claimed invention was made to use, as the starch derivative component for the aqueous fluid disclosed in Dobson, a pregelatinized crosslinked amylopectin starch having the limited amount of amylase that is recited in the claims. One skilled in the art would do so to attain a resultant well

Art Unit: 1712

fluid having a preferred/desired amount of amylase in the starch derivative that is optimal for a specific future use.

Moreover, Applicant has provided no evidence showing the criticality to the claimed invention of the starch derivative component having less than 10% amylase.

Thus, the instant claims are unpatentable over Dobson.

Response to Arguments

The 35 U.S.C. 112 Rejection (item 2 of OA)

9. Applicant's arguments in Response with respect to this 35 U.S.C. 112 rejection have been considered but have become moot due to the withdrawal of this rejection in view of Applicant's amendment to the claims in Response.

The 35 U.S.C. 102 Rejection over Dobson (item 4 of OA)

10. Applicant's arguments in Response with respect to the 35 U.S.C. 102(b) rejection of claims 1-6 as anticipated by Dobson have been fully considered but are deemed unpersuasive.

Applicant's arguments concerning the well fluid disclosed in Dobson further comprising a solution containing a formate salt are misguided. As discussed above, the amended claims can be interpreted to encompass a well fluid comprising a monovalent cation brine solution *and* further comprising any other solution, such as a formate brine solution. Thus, that the well fluid disclosed in Dobson further contains a formate salt is not relevant to the patentability of the instant claims, as amended.

Art Unit: 1712

Applicant's conclusions regarding Dobson not disclosing a well fluid substantially free of xanthan gum because preferred embodiments in Dobson contain xanthan gum as a viscosifier are misdirectional. "Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments." *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), *cert. denied*, 493 U.S. MPEP 2123. As stated previously on page 3 in OA:

The biopolymer can be an extracellular polysaccharide of high molecular weight produced from microorganisms of the genus *Xanthomonas* (e.g. xanthan gum) *or, alternatively*, from other bacteria or fungi, such as, succinoglycan-type polysaccharide sugars and polysaccharides derived from microbes of the genus *Pseudomonas*, *Agrobacterium*, *Arthrobacter*, *Rhizobium* and *Sclerotium*. (Col. 4, lines 28-43) [Emphasis added.]

Therefore, Dobson is disclosing that the well fluid composition need not contain xanthan gum as a viscosifier, even though preferred embodiments disclosed in Dobson actually do include xanthan gum as the viscosifying component.

Finally, in response to Applicant's arguments that Dobson does not expressly disclose the shear rate viscosities recited in the claims, although Dobson may not explicitly disclose these physical properties for the well fluid, because the well fluid composition disclosed in Dobson and that encompassed by the instant claims are the same composition, then both well fluid compositions, and methods of using the same composition, must inherently possess the same physical properties/effects when the

Art Unit: 1712

composition is introduced into a well bore, absent any evidence/showing by Applicant to the contrary.

Thus, the claims, as amended, remain anticipated by Dobson.

The 35 U.S.C. 102 Rejection over Estes (item 5 of OA)

11. Applicant's arguments in Response with respect to the 35 U.S.C. 102(b) rejection as anticipated by Estes have been considered but have become moot in view of the withdrawal of this rejection in view of Applicant's amendment to the claims in Response.

The 35 U.S.C. 103 Rejection over Estes (item 7 of OA)

12. Applicant's arguments in Response with respect to the 35 U.S.C. 103(a) rejection of claim 8 as unpatentable over Estes have been considered but have become moot in view of the cancellation of this claim in Response.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 1712

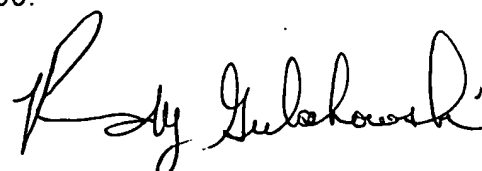
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Figueroa whose telephone number is (571) 272-8916. The examiner can normally be reached on Mon-Thurs & alt. Fri 8:00-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JJF/RAG


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